

AI IN MODERN BUSINESS



► **WeChat**

Shubham Khandagale

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PGDM 2018-2020

MESSAGE FROM THE DIRECTOR

Dear Readers,

It gives me great pride to introduce SAMVAD's edition every month. Our SAMVAD team's efforts seem to be paying off, and our readers seem to be hooked onto our magazine. At WeSchool, we try to acquire as much knowledge as possible and share it with everyone.



Prof. Dr. Uday Salunkhe
Group Director

As we begin a new journey with 2023, I sincerely hope that SAMVAD will reach new heights with the unmatched enthusiasm and talent of the entire team.

Here at WeSchool, we believe in the concept of AAA: Acquire Apply and Assimilate. The knowledge you have acquired over the last couple of months will be applied somewhere down the line. When you carry out a process repeatedly, it becomes ingrained in you and eventually tends to come out effortlessly. This is when you have assimilated all the knowledge that you have gathered.

At WeSchool, we aspire to be the best and unique, and we expect nothing but the extraordinary from all those who join our college. From the point of view of our magazine, we look forward to having more readers and having more contributions from our new readers.

SAMVAD is a platform to share and acquire knowledge and develop ourselves into integrative managers. Our earnest desire is to disseminate our knowledge and experience with not only WeSchool students but also the society at large.

Prof. Dr. Uday Salunkhe,
Group Director

ABOUT US



OUR VISION

“To nurture thought leaders and practitioners through inventive education.”

CORE VALUES

Breakthrough Thinking and Breakthrough Execution

Result Oriented, Process Driven Work Ethic

We Link and Care

Passion

“The illiterate of this century will not be those who cannot read and write, but those who cannot learn, unlearn and relearn.” -Alvin Toffler.

At WeSchool, we are deeply inspired by the words of this great American writer and futurist. Undoubtedly, being convinced of the need for a radical change in management education, we decided to tread the path that led to the corporate revolution.

Emerging unarticulated needs and realities require a new approach in both thought and action. Cross-disciplinary learning, discovering, scrutinizing, prototyping, learning to create and destroy the mind's eye needs to be nurtured differently.

WeSchool has chosen the 'design thinking' approach towards management education. All our efforts and manifestations, as a result, stem from the integration of design thinking into management education. We dream of creating an environment conducive to experiential learning.

FROM THE EDITOR'S DESK

Dear Readers,

Welcome to the **146th** Issue of **Samvad!**

SAMVAD is a platform for “Inspiring Futuristic Ideas”, we constantly strive to provide thought-provoking articles that add value to your management education.

We have an audacious goal of becoming one of the most coveted business magazines for B-school students across the country. To help this dream become a reality, we invite articles from all management domains, giving a holistic view and bridging the gap between industry veterans and students through our WeChat section.

In this issue of SAMVAD, we bring to you some articles focusing on ‘AI in Modern Business’ with a section called ‘WeChat’. Our WeChat alumnus for this edition is Mr. Shubham Khandagale who is a Senior Consultant at Indegene. He completed his PGDM in the year 2020. Read the WeChat section to understand how AI is making its way into all sections of modern businesses.

In today's rapidly evolving business landscape, artificial intelligence (AI) is emerging as a transformative force across industries. AI's ability to analyze vast datasets, automate processes, and enhance decision-making is revolutionizing modern business operations. From improving efficiency to driving innovation, AI is becoming an indispensable tool for organizations seeking to maintain a competitive edge.

AI adoption in business is accelerating globally. According to a report by McKinsey, AI has the potential to deliver an additional \$13 trillion to the global economy by 2030, a reflection of its profound impact across sectors. This technological shift is enabling businesses to streamline operations, reduce costs, and increase productivity. For instance, AI-powered automation tools are helping companies optimize supply chains, improve customer service, and manage financial processes with greater accuracy.

FROM THE EDITOR'S DESK

One of the most significant areas where AI is making an impact is in customer experience. AI-driven solutions, such as chatbots and virtual assistants, are enabling companies to provide 24/7 customer support, leading to enhanced customer satisfaction. According to Gartner, by 2025, AI will power 95% of customer interactions, reducing the need for human intervention and improving response times. These AI-driven interactions are not only more efficient but also personalized, with machine learning algorithms analyzing customer data to offer tailored solutions.

Data analysis is another area where AI is proving invaluable. In the era of big data, businesses are inundated with information, and AI provides the tools to make sense of it all. AI algorithms can process and analyze data at speeds far beyond human capabilities, uncovering patterns, trends, and insights that drive better business decisions. A study by PwC highlights that 72% of executives believe that AI will be a business advantage in the future, emphasizing its role in enhancing strategic planning and forecasting.

In the financial sector, AI is being used to improve risk management and fraud detection. AI models can analyze transaction data to identify unusual patterns that may indicate fraudulent activity. According to a report by Deloitte, AI-driven fraud detection systems can reduce false positives by up to 90%, allowing financial institutions to focus their efforts on genuine threats. Additionally, AI is helping companies assess credit risk more accurately by analyzing non-traditional data sources, such as social media activity and mobile phone usage, providing a more comprehensive picture of an individual's financial behavior.

India is also witnessing a surge in AI adoption across various industries. The country's robust tech ecosystem and growing digital infrastructure are fueling the rise of AI-powered business solutions. According to NASSCOM, India's AI market is expected to reach \$7.8 billion by 2025, driven by increasing demand for AI in sectors such as healthcare, finance, and manufacturing. India's National AI Strategy and initiatives such as the establishment of the Centre of Excellence for AI further highlight the government's commitment to fostering AI innovation and development.

FROM THE EDITOR'S DESK

AI is also playing a critical role in enhancing business operations through automation. Robotic process automation (RPA), for instance, is being used to automate repetitive tasks, such as data entry and invoice processing, allowing employees to focus on higher-value activities. A report by Grand View Research predicts that the global RPA market will reach \$25.56 billion by 2027, driven by the increasing demand for automation across industries. AI's potential to drive innovation is evident in sectors such as healthcare, where it is being used to develop new treatments, improve diagnostic accuracy, and enhance patient outcomes. According to Accenture, AI in healthcare could save the U.S. healthcare economy up to \$150 billion annually by 2026. In India, AI-driven health tech startups are leveraging machine learning to address critical challenges, such as predicting disease outbreaks and improving access to healthcare in remote areas.

As AI continues to advance, its impact on business will only grow. Companies that embrace AI technologies will be better positioned to adapt to changing market conditions, improve operational efficiency, and deliver superior customer experiences. According to a report by Forrester, businesses that invest in AI will see a 10% increase in revenue and a 15% reduction in operational costs by 2025, highlighting the financial benefits of AI adoption.

The future of AI in modern business is bright, with continuous advancements in technology opening up new possibilities for innovation and growth. As AI becomes more integrated into business operations, companies will need to focus on upskilling their workforce to work alongside AI systems and ensure that ethical considerations are at the forefront of AI development. With the right strategy, AI has the potential to transform businesses and drive long-term success in the digital age.

We hope you have a great time reading SAMVAD!

Let's read, share and grow together!

Best Regards,
Team Samvad.

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Shubham Khandagale

**Senior Consultant
Indegene
PGDM 2018-2020**

1. Could you please provide a detailed account of your professional journey, your experiences and career progression from your time at Welingkar Institute of Management to your current position?

I began my career as an Associate Consultant with Infosys in 2020, during the COVID-19 pandemic. My role was within the Business Process Management (BPM) vertical, focusing on clients in the Banking, Financial Services, and Insurance (BFSI) sector. BPM is a critical area for organizations as it aims to optimize business operations and processes using advanced technology, leading to significant reductions in labor hours and substantial cost savings.

During my tenure at Infosys, I served as a business consultant for two major banks in North America and Europe, helping transform their outdated regulatory reporting systems into modern, digital platforms.

We leveraged "Low Code - No Code" technology, enabling the development of IT applications without traditional coding. After nearly three and a half years with Infosys, I transitioned to Indegene.

At Indegene, I hold the position of Senior Consultant and Product Manager for Generative AI product offerings, primarily serving clients in the pharmaceutical industry. Indegene is a leading consultancy in the Generative AI space, partnering with major pharmaceutical companies across more than 150 countries.

Currently I am handling 3 GenAI products, consisting integration with more than 15+ GPTs, and 20+ LLMs.

2. As AI continues to evolve, what skills or knowledge gaps do you see emerging for future business professionals?

For all the business professionals, especially those who want to get into consulting/product management job profiles; I believe these few points are deciding factors when you appear for an interview.

- Ethical and Responsible usage of AI systems
- Strategic Thinking for prudent usage of AI
- AI Integration into product and Innovation Management
- Risk Management
- Customer Experience
- Continuous Learning & Adaptability

You do not have to master all of these skills, pick one or two and try to read as much as possible about the topic. AI will always be evolving, but how you as a professional will utilise that technology for betterment of your organisation; without hampering ecosystem is the skill you would want to learn.

3. How do you envision the professionals collaborating with AI to bridge the gaps and create successful human-AI partnerships in the workplace?

AI is useful for decision making, AI cannot take decisions by itself. So, essentially AI-Human partnership is a must. With the help of various techniques like predictive analysis; one can take well informed decision. So instead of looking at AI as a job finisher, one can change the perspective and look at it as a co-pilot. Yes, some redundant tasks will be killed by AI – automation, but with continuous learning and upgrading your knowledge base, one can surely outperform AI systems without doubt. So by considering AI as a collaborative partner (a co-pilot) for enriched personalised customer/client experience; human – AI partnership will be successful.

4. What are some of the most innovative and unexpected ways you see AI being used to transform customer experiences or revolutionize business operations?

I am currently working in Generative AI space, and advancement with GenAI is truly mesmerising. I see the most impact is on content creation space.

With a single prompt, a non-creative person is able to generate a ready to use picture, for which a professional photographer would've spent months/years. I have seen full fledged

advertisements being drafted and created by GenAI, using simple prompts. Right from ideation – story boarding till video generation is being done by GenAI. What used to be 4-6 months job, of creating marketing content, is being done by GenAI within days. Imagine the human hours and money being saved.

5. Looking to the future, what advice would you give to someone starting their career in a world increasingly influenced by AI?

I may not have been in the industry for a long time, but I have seized every opportunity to gain valuable experience and insights. While AI can significantly assist in making informed decisions, it can never fully replace human decision-making abilities. As you join any organization, it's crucial to be adaptable and continuously learn new skills.

As an MBA graduate, you are expected to excel in interpersonal relations, stakeholder management, and leading cross-functional teams to achieve goals within set timelines—tasks that AI cannot accomplish. Embrace AI to enhance your work rather than resist it. Regardless of your field, be it finance or HR, stakeholder management is an essential skill. Be open to new technologies and think strategically about how to leverage them to simplify your tasks and benefit your customers and clients.

I hope this advice proves helpful!

AI-Powered Recruitment Tools: Revolutionizing Talent Acquisition



Winner

Pearl Lehar
PGDM Core

S.P. Mandali's, Prin. L. N. Welingkar Institute of Management Development & Research, Mumbai (WeSchool)



Introduction

Talent acquisition is no less than locating a gemstone in the sand. And it is not a single man's job. It takes a lot of effort and workforce to screen a single CV through multiple rounds, rejecting and qualifying candidates for subsequent rounds. SHRM Talent Acquisition Survey of 2022 states that almost 60% of HR professionals find difficulty in finding qualified candidates. And now when the tasks are being assisted or shifted to AI, this domain can also benefit from the AI based software to cut-down a lot of hassles.

The end-to-end recruitment from job opening to employee on boarding is a multi-step process for the TA team. Using AI can cut down costs, efforts and steps via which the team can be utilized for more productive and decision-making work. A report by Personio believes that 74% of business identifies opportunity for increased productivity in the organization, out of which 66% believe that AI holds the caliber to address these issues.



Above figure illustrates the daily tasks that can be automated via AI to avoid repetitive tasks and focus on more productive activities.

Broad stages in talent acquisition

Most companies use ATS software to screen and track candidate related activities on the software. The initial screening of the candidate's resume is based on the keywords matching with the job description and requirement of the employer.



Sourcing: - Sourcing candidates from various channels and screening through various resumes, identifying potential candidates from a pool of candidates.

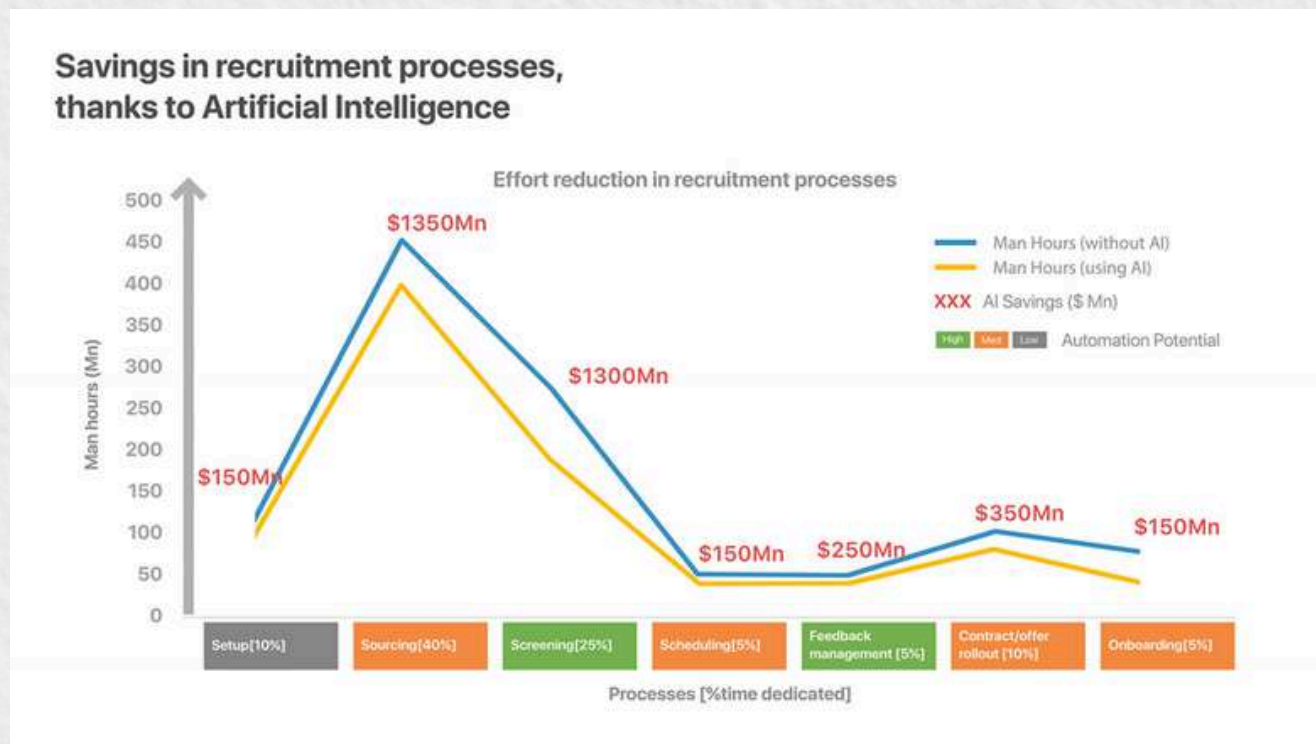
Recruiting:- Conducting interview or a series of interview, assessments, background checks to ensure suitability of candidate.

Candidate Ranking:- ATS ranks the resumes based on their alignment with job descriptions. The scoring may be based on various keywords and background information. The recruiters can then review the higher ranked employees and shortlist them for further information.

Salary negotiation and making offer:- Making a offer after negotiating a salary with the chosen candidate.

Employee onboarding:- Ensuring a transition for the candidate to the organization by providing induction, training and initial support.

The solution: Artificial Intelligence



One of the major advantages of AI is removal of personal bias or influence which will post a decision based on candidate's potential and abilities only. A report by Harvard Business Review states that companies that rely on AI in hiring process have a whopping 46% chance of a better successful hire. But how can AI pitch in and give a reliable solution? Using the right prompt and right AI prompt engineering techniques,

AI can leverage all the steps in talent acquisition. Even a study by McKinsey & Company found that AI-based hiring tools improve hiring efficiency by 20%.

Initial Automated Screening: A study by Talent Board And Phenom states that using AI, the resume reviewing time can improve by almost 75%. With right keywords and consistent pattern recognition, AI can easily screen the resumes and reject the invalid ones in a fraction of seconds.

Initial follow-ups after screening: AI can also help to follow up with the candidates and send them further communication for interview scheduling or send an e-mail in case they do not meet the requirements because a research by Talent Board indicates that 52% of candidates have to wait for 3+ months for a response after submitting an application. And this can reflect poorly on the company's image as a report by CareerBuilder, 2021 states that 72% job seekers believe a lack of communication on the application process reflects poorly on company's culture. With AI, follow up and rejection can be easy.

Candidate Ranking: AI can analyze past data and make a prediction regarding what parameters ensure higher ranking of a candidate. On the other hand AI can also identify biases in the ranks and suggest a more diverse pool of candidates for embracing DEI in the organization. A report by the Society for Human Resource Management (

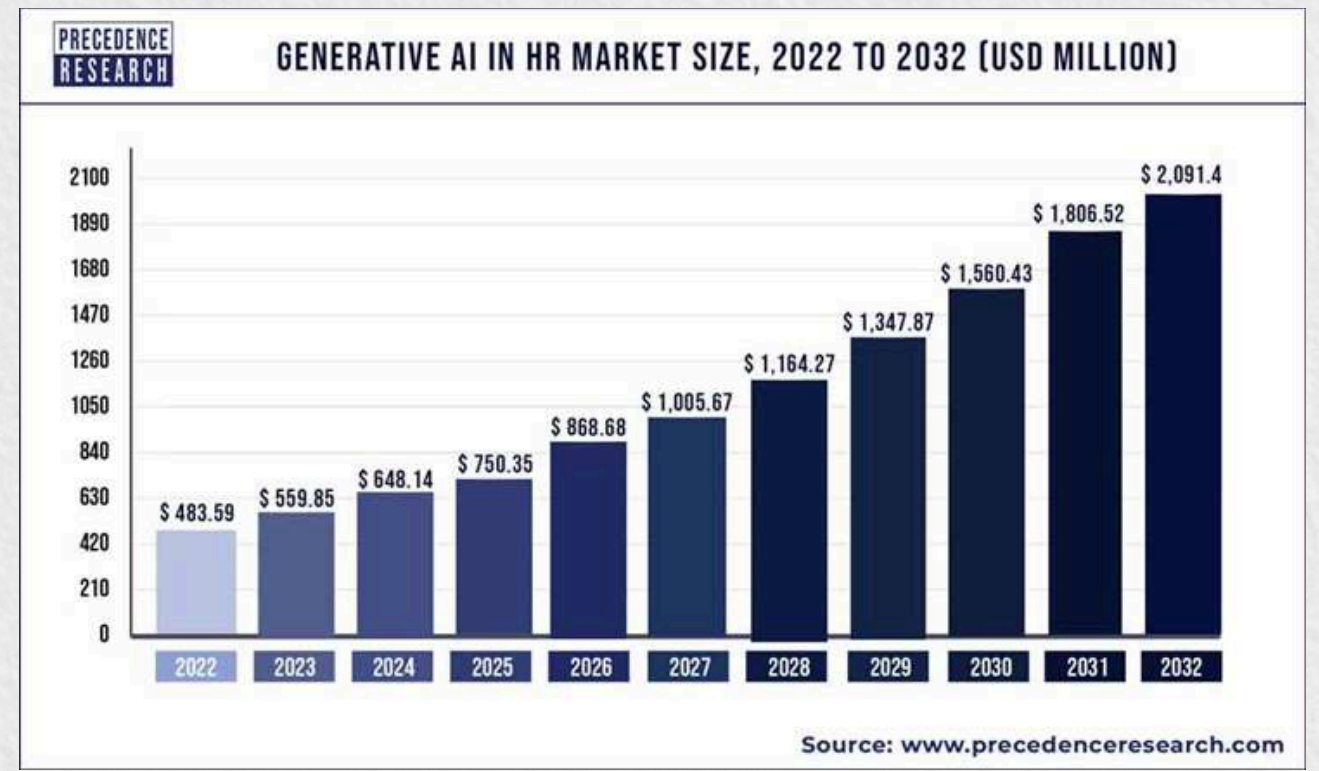
SHRM) indicates that 60% of HR professionals believe AI can help reduce unconscious bias in the hiring process.

Interview scheduling: AI tools can allow integration with calendar based tools to help recruiters and candidates check a common slot for their interview schedule and also can assist recruiters in sending out reminders for the interviews to the candidates. A report by aptitude research states that the use of AI-based tools can reduce time-to-hire by almost 72%, which includes benefits from faster scheduling.

Interview Questionnaire: Experimenting with different prompts and uploading the job profile and resume, AI can help to form sample questionnaire for the interviewer to test the employee. The questions may give the interviewer an overview of the lines in which he can assess the employee.

Future with AI

A report by precedence research suggests that the global generative AI in HR market size is expected to rise exponentially and expected to hit around USD 2,091.4 million by 2032, and grow at a CAGR of 15.77% from 2022-2032. As AI continues to automate the tasks and create a more personalized experience for the employee experience and well-being, the HR team needs to adapt and embrace this changing landscape of the HRD and make space for growing opportunities in this sector.



Concluding remarks

AI based recruitment tools are changing the landscape of the talent acquisition. AI can not only help to automate the tasks, provide insights and decisions based on data-driven patterns and reduces human based bias and errors. With the rising evolution in Artificial intelligence over the sectors, we can identify and innovate more solutions in the different sectors of talent acquisition and other domains of the Human Resource department.

The article above emphasis the growing curve of Artificial Intelligence in the HR department and also suggests some ways to automate and take assistance for data-driven decision making from the AI. From initial screening using keywords and past patterns to sending out follow-up communications for further processes or rejection mails, it can handle the sourcing part. For the recruitment and interview scheduling, AI can help frame interview questionnaire, finding a common slot for interview conduction. Leveling up further, AI can also help to generate offer letter, salary negotiation and creating job bands.

In a nutshell, Artificial Intelligence has made a lot of improvements in the different work domains and Human Resources can also extract the benefits it is offering for cutting down costs and tedious labor work and help employees focus on more productive and instinct/fact based decision making and let the workplace bloom a more diverse and high-performing environment.

AI-DRIVEN CREDIT SCORING APPROVAL IN BANKS: OVERCOMING CHALLENGES AND ACHIEVING FAIRNESS



Runner Up

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MBA

Christ University



In the ever-evolving financial landscape, credit scoring has become an indispensable tool for banks to assess creditworthiness and make informed lending decisions. However, traditional credit scoring models have faced criticism for perpetuating financial inequality and being susceptible to errors. This is where artificial intelligence (AI) and machine learning (ML) come into play, revolutionizing the credit scoring approval process within banks and paving the way for a more equitable and accurate system.

The Rise of AI in Credit Scoring Approval

The integration of AI and ML into credit scoring approval models has garnered significant interest due to their ability to leverage vast amounts of data and advanced algorithms. By considering a broader range of data points beyond traditional credit bureau information, AI models can provide a more comprehensive and nuanced assessment of an individual's creditworthiness.

One of the key advantages of AI-driven credit scoring approval is its capacity to incorporate alternative data sources, such as utility payments, rental history, and even social media activity. This approach is particularly beneficial for individuals with limited traditional credit histories, enabling banks to make more informed decisions and potentially improving access to credit for underserved communities.

Addressing Financial Inequality

A significant criticism of traditional credit scoring approval models is their potential to perpetuate financial inequality. Factors such as income instability, medical debt, and lack of access to traditional banking services can disproportionately affect lower-income and minority communities, resulting in lower credit scores and reduced access to credit.

AI-driven credit scoring approval models can help mitigate this issue by considering a broader range of data points and identifying alternative indicators of creditworthiness. For example, an AI model could analyze an

individual's consistent utility payments or their ability to manage their finances responsibly, even with limited traditional credit history.

In India, where a significant portion of the population remains unbanked or underbanked, AI-driven credit scoring approval models have the potential to unlock financial opportunities for these underserved communities. Banks like HDFC Bank and Axis Bank, as well as fintech startups like CreditVidya, Lendingkart, ZestMoney, NiYO, and EarlySalary, are leveraging alternative data sources and AI algorithms to assess creditworthiness more accurately and inclusively.

Reducing Errors and Improving Accuracy

Another significant challenge in credit scoring approval is the prevalence of errors in credit reports. According to a study by the Federal Trade Commission, one in five consumers in the United States had an error on at least one of their credit reports, potentially leading to lower credit scores and adverse loan terms.

AI and ML techniques can play a crucial role in reducing these errors and improving the accuracy of credit scoring approval models. AI algorithms can be trained to identify and flag potential errors or inconsistencies in credit report data, enabling banks and credit bureaus to address these issues proactively.

Ethical Considerations and Transparency

While AI-driven credit scoring approval holds immense potential, it is crucial to address ethical considerations and ensure transparency in the decision-making process. One of the primary concerns surrounding AI models is the risk of perpetuating bias and discrimination if the training data or algorithms are flawed.

To mitigate this risk, it is essential to adopt robust governance frameworks and ensure that AI models are trained on diverse and representative data sets. Additionally, regular audits and independent reviews should be conducted to identify and address any potential biases or unfair practices.

Case Studies: AI-Driven Credit Scoring Approval in Action

JP Morgan Chase, one of the largest banks in the United States, has successfully implemented an AI-powered credit scoring approval model in partnership with various lending partners. JP Morgan Chase's model incorporates alternative data sources, such as employment history and educational background, to evaluate creditworthiness. According to the bank's own research, their model has approved a higher percentage of borrowers than traditional models while maintaining similar loan performance, demonstrating the potential for increased financial inclusion through AI-driven credit scoring approval.

In India, ICICI Bank, a leading private sector bank, has developed an AI-driven credit scoring approval model that leverages alternative data sources and machine learning algorithms to assess creditworthiness. According to ICICI Bank, their model has enabled them to provide credit to a broader range of customers, many of whom were previously underserved by traditional credit scoring models.

Fintech startups are also at the forefront of AI-driven credit scoring approval. Platforms like Upgrade, Affirm, and Oportun in the United States, and NiYO and EarlySalary in India, use AI models to evaluate creditworthiness based on alternative data sources, expanding access to credit for individuals with thin or no credit files.

ZestFinance, a leading AI-powered credit scoring company, has partnered with banks and fintech lenders to develop customized AI models that incorporate alternative data sources and machine learning algorithms. According to ZestFinance, their AI-driven credit scoring solutions have helped lenders approve more borrowers while maintaining risk levels, contributing to financial inclusion efforts.

Statistics and Graphs

According to a report by the World Bank, approximately 1.7 billion adults globally lack access to formal financial services, highlighting the need for innovative solutions to promote financial inclusion.

The following graph illustrates the potential impact of AI-driven credit scoring approval on loan approval rates across different credit score ranges, based on a study by StratML, a machine learning consulting firm:

Credit Score Range	Traditional Model Approval Rate	AI-Driven Model Approval Rate
300-499	5%	15%
500-599	25%	40%
600-669	60%	75%
670-739	85%	90%
740-799	95%	97%
800-850	98%	99%

This data suggests that AI-driven credit scoring approval models can significantly improve loan approval rates, particularly for individuals with lower credit scores or limited credit histories.

Conclusion

As the financial industry continues to evolve, the integration of AI and ML into credit scoring approval models presents a promising solution to the challenges and criticisms faced by traditional systems within banks. By leveraging alternative data sources, advanced algorithms, and continuous learning capabilities, AI-driven credit scoring approval can enhance fairness, reduce errors, and improve overall accuracy in creditworthiness assessments. However, the successful implementation of these technologies requires a concerted effort from banks, credit bureaus, fintech companies, and regulatory bodies. By embracing ethical principles, promoting transparency, and fostering collaboration, the banking industry can harness the power of AI to create a more inclusive and equitable financial landscape.

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The Role of AI in Manufacturing Operations - Impact of AI on production planning, quality control, and resource optimization in manufacturing operations



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The AI Revolution in manufacturing: A Seismic Shift

The producing landscape is present process a metamorphosis driven via artificial intelligence (AI). No longer completely reliant on machines and assembly lines, producers are injecting intelligence into operations, unlocking a brand new technology of efficiency, first-rate, and innovation. This newsletter explores the profound impact of AI on three essential aspects: manufacturing making plans, first-class manipulate, and resource optimization.

Manufacturing planning: From Reactive to Predictive

Traditional manufacturing planning, closely reliant on ancient records and forecasts, often led to inefficiencies. Misguided demand forecasting ended in overproduction (excess stock) or underproduction (stockouts). Limited flexibility made it difficult to conform to unforeseen disruptions. AI empowers manufacturers to shift toward predictive planning:

More desirable call for Forecasting: AI analyzes great quantities of records (ancient income, market tendencies, social media sentiment) to predict future demand with extra accuracy. This guarantees manufacturing aligns perfectly with market needs.

Dynamic Scheduling and real-Time Optimization: AI analyzes actual-time save ground data (gadget availability, cloth flow) to dynamically adjust production schedules. This minimizes idle time and allows for short changes to disruptions.

Predictive preservation: AI analyzes sensor facts from equipment to are expecting capability screw ups, permitting proactive preservation and preventing steeply-priced downtime.

Benefits:

- Elevated production performance through optimized schedules and minimized waste.
- Reduced prices because of correct call for forecasting and preventive upkeep.
- Progressed on-time delivery via aligning production with client demand.

Better agility to adapt to converting market needs and disruptions.

AI IN MANUFACTURING INDUSTRY

How can AI Help Improve the Manufacturing Industry?



Pleasant manipulate: From manual Inspection to actual-Time monitoring Traditional fine control methods have barriers:

- Human blunders: guide inspection is prone to fatigue, inconsistency, and subjective judgment, leading to overlooked defects.
- sluggish and Inefficient: guide inspection may be gradual for excessive-quantity production, causing bottlenecks and delays.
- limited Scope: conventional techniques won't hit upon all defects, particularly microscopic flaws.

AI ushers in a new generation of quality control:

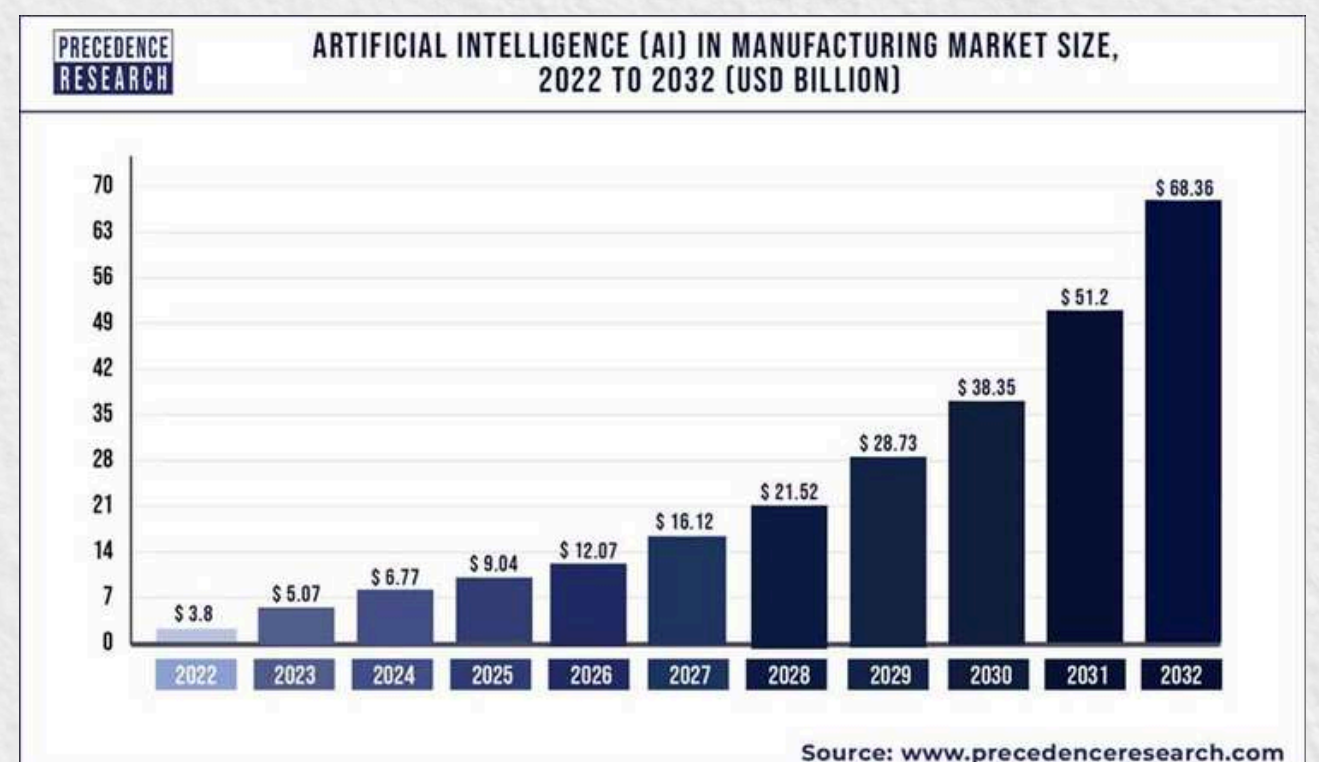
- Machine vision: AI-powered imaginative and prescient structures with excessive-resolution cameras investigate merchandise at excessive speeds and superior accuracy, identifying a huge variety of defects. Consider a digital camera with AI highlighting defects on a conveyor belt for instant motion.
- actual-Time tracking: AI continuously

monitors production approaches thru sensor facts evaluation. Early detection of anomalies lets in for immediate corrective motion, minimizing waste and ensuring consistent excellent. Picture AI tracking a welding line, identifying deviations that could cause defective welds.

• Statistical manner manipulate (SPC) with AI: historically, SPC is predicated on manual statistics series. AI automates this method, statistically analyzing huge quantities of production records to pick out traits and predict ability satisfactory deviations. Consider AI reading records on each product produced, triggering signals if statistical variations propose a developing satisfactory trouble.

Benefits:

- improved product pleasant via consistent and accurate disorder detection.
- reduced transform and scrap costs, leading to significant price financial savings.
- superior brand recognition due to regular product nice.
- progressed process efficiency thru proactive identity and correction of first-class troubles



Aid Optimization: From intuition to statistics-driven choices

Production operations contain a complex web of assets: employees with diverse talent sets, gadget with varying skills, and substances of different kinds and portions. Optimizing those sources is essential for maximizing performance and profitability. Conventional methods often fall quick:

- Restricted Visibility:** guide statistics series and analysis cause a loss of real-time visibility, making it tough to optimize resource allocation.

- Subjective selection-Making:** aid allocation selections are regularly based on enjoy and instinct, leading to inefficiencies and overlooked opportunities.

- Underutilization or Overallocation:** assets can be underutilized, leading to wasted ability, or overallocated, ensuing in bottlenecks and delays.

AI empowers statistics-driven useful resource optimization:

- Actual-Time data Integration:** AI can gather and analyze data from various resources (production schedules, system performance, employee skill units) to offer a clear photo of useful resource availability and desires.

- AI-powered aid Allocation:** AI algorithms examine actual-time information to optimize useful resource allocation. The right humans are matched with the proper tasks based on their talents and availability.

Equipment is allotted to jobs primarily based on talents and upkeep schedules, ensuring most effective utilization and preventing overloads. Imagine a complex manufacturing ground with AI dynamically assigning obligations to the most suitable employees and gadget primarily based on real-time facts.

- Predictive protection with AI:** As discussed earlier, AI-powered predictive upkeep minimizes downtime and guarantees greatest useful resource usage.

- Stock management with AI:** AI analyzes historical demand information, manufacturing schedules, and provider lead instances to optimize stock tiers. This ensures sufficient materials are to be had for production without incurring useless storage costs or stockouts that might disrupt manufacturing flow. Believe AI continuously analyzing data on uncooked cloth usage, production schedules, and dealer delivery instances. It may then expect destiny fabric desires and automatically cause orders to maintain most desirable stock ranges, preventing both stockouts and overstocking.

Benefits:

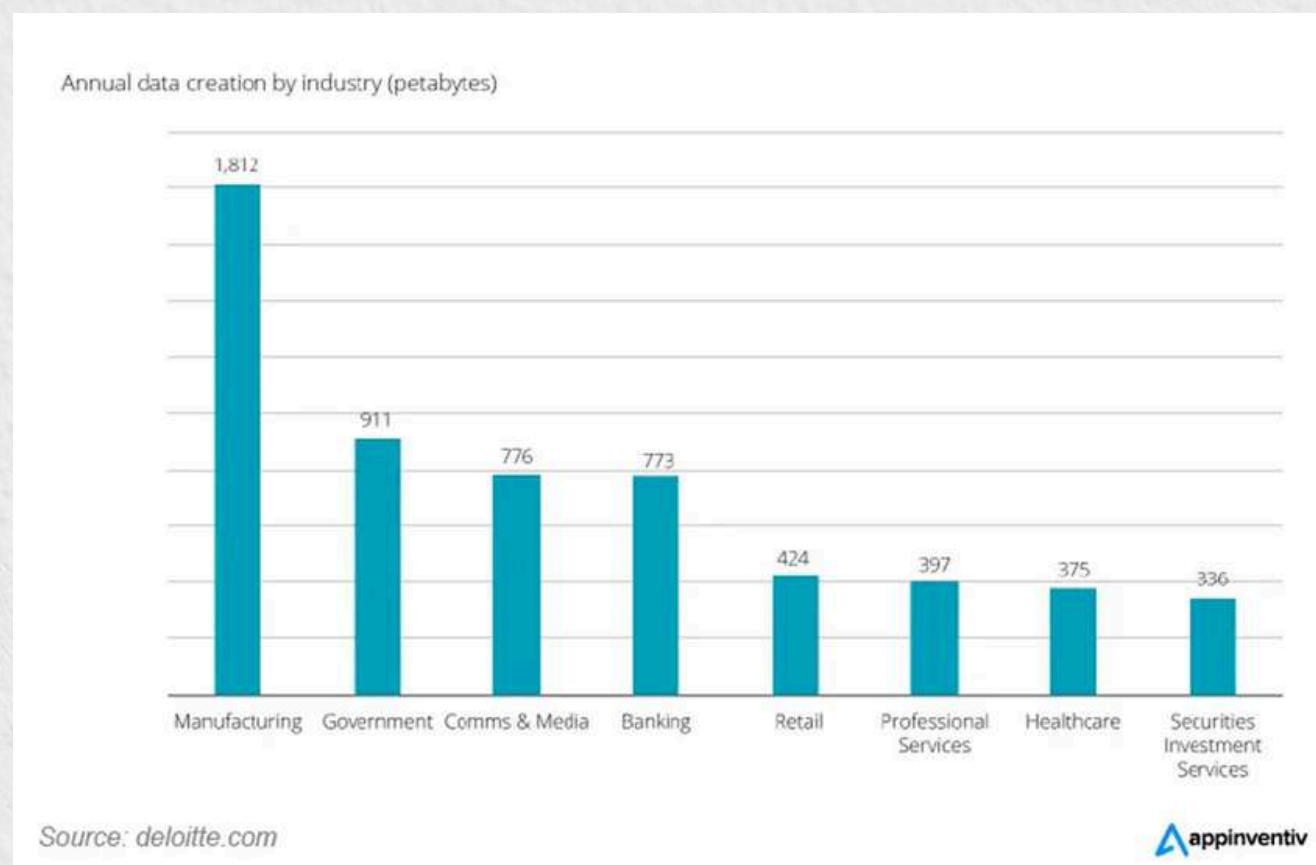
- decreased manufacturing charges through minimized waste, optimized system use, and reduced downtime.

- advanced productivity by making sure the right resources are to be had on the right time.

- more advantageous agility to adapt to converting production needs and unexpected disruptions thru dynamic

useful resource allocation.

- decreased environmental effect thru AI-powered inventory control that minimizes waste and optimizes power intake inside production techniques.



The future of AI in manufacturing: A Collaborative technique

The mixing of AI into production operations doesn't signal the give up of human involvement. Rather, AI serves as a effective device that empowers the human staff. Here is a glimpse into the destiny of this collaborative surroundings:

- Self-studying systems: AI systems will become extra adept at mastering from statistics and autonomously optimizing manufacturing strategies. This will loose up human employees to consciousness on better-stage duties like strategic planning, innovation, and pleasant control oversight.

- Collaborative Robotics: AI-powered robots will paintings seamlessly along human workers, appearing duties that are risky, repetitive, or require excessive precision. Imagine a manufacturing unit worker assembling a complex product with the assistance of an AI-powered

robotic arm. The robotic can handle sensitive duties or provide vital tools, at the same time as the human employee applies their expertise and judgment for greater problematic assembly steps.

- Supply Chain Optimization: AI will play a key role in optimizing the whole supply chain, from raw material procurement to completed product transport. AI can analyze records to predict call for fluctuations, optimize transportation routes, and make sure just-in-time shipping of materials, minimizing inventory costs and disruptions.

The road ahead: Embracing the AI Revolution

The destiny of producing is smart, interconnected, and information-driven. With the aid of embracing AI, manufacturers can free up a new technology of performance, high-quality, and innovation. This alteration requires no longer only technological investment but also a cultural shift that fosters collaboration among human beings and AI. As AI keeps to conform, manufacturers who capture the possibility to leverage its strength will be quality located to thrive in a competitive worldwide market.

Reference

Artificial intelligence in operations management and supply chain management: an exploratory case study

Personalized Marketing: AI's Role in Tailored Campaigns



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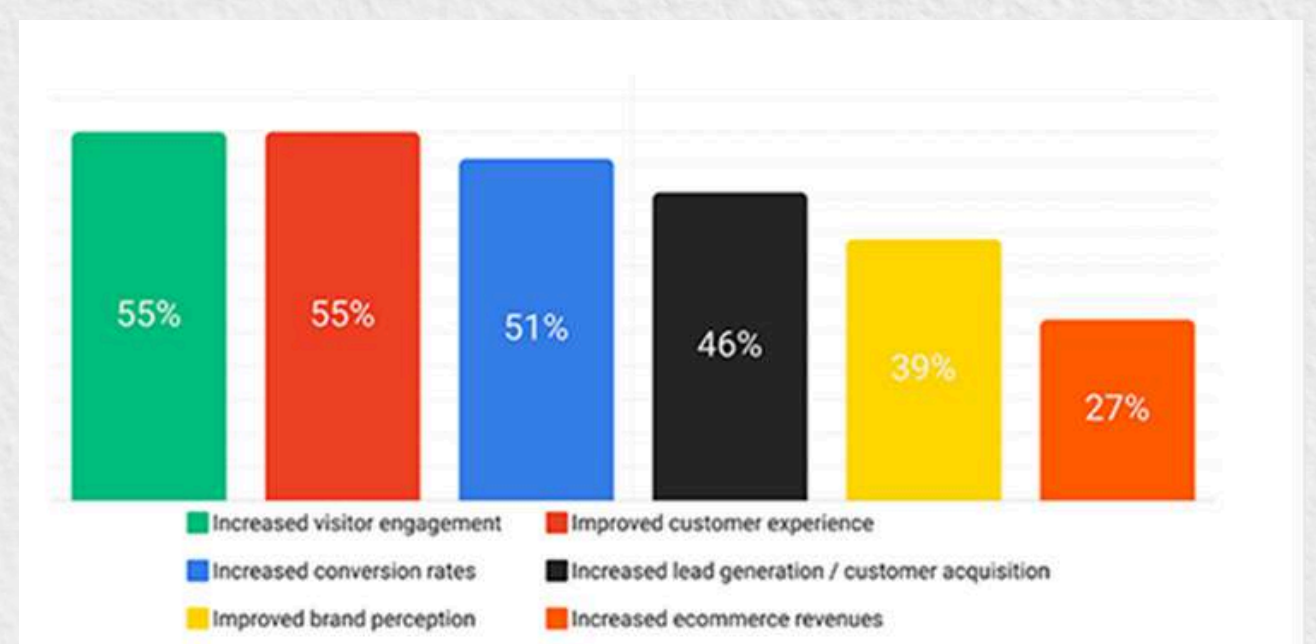
Remember those cheesy messages from your beloved food delivery apps you receive calling you to order your favorite fried chicken and cheesecakes? That's AI in action with the help of some creative marketers. Generations of marketers have long sought to engage their target group in campaigns and personalized marketing does just that with a powerful strategy to engage consumers and foster brand loyalty. This article explores the role of AI in personalized marketing, the technologies driving this shift, and the benefits and challenges associated with implementing AI-driven personalized campaigns.

Personalized experiences drive consumer spending and brand choice. Recent study by Medallia Market Research says 61% of the consumers confirmed their willingness to spend more money if they receive a personalized experience [1], McKinsey reports that 77% of B2B companies using personalized experiences see an increase in market share and SmarterHQ study reveals that 72% of consumers only interact with marketing

materials customized to their unique interests.[2]

Marketers quickly adapted to this approach, using various mediums to reach customers, from emails to WhatsApp messages. Personalized marketing involves tailoring messages, offers, and content to individual customers based on their preferences, behaviors, and demographics. The goal is to create a more relevant and engaging

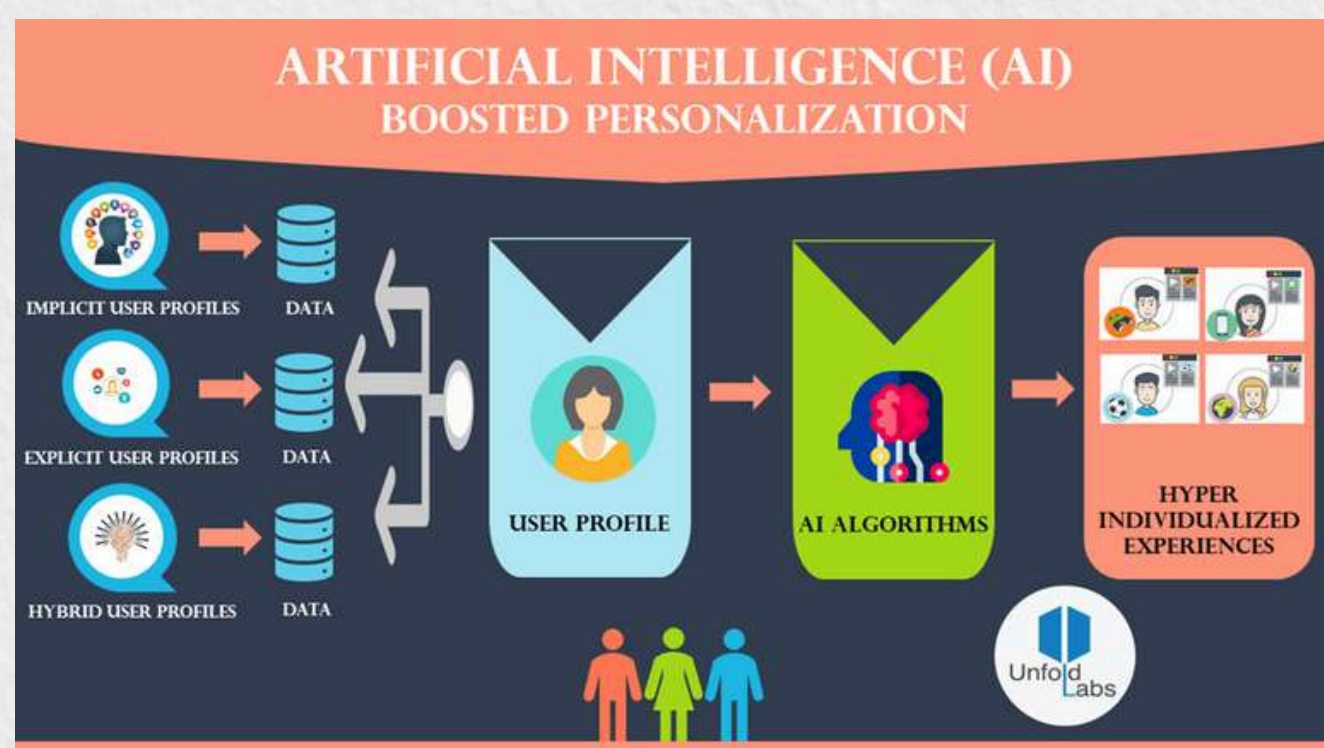
experience for each customer, which can lead to higher conversion rates, increased customer satisfaction, and stronger brand loyalty (graph below).



The increased use of AI and data for marketing began in the early 2010s. Over the next decade, advancements in social media and data-driven methods enabled companies to gather detailed customer behavior and purchasing habits. This data, combined with rising customer expectations and technological advancements, supports personalized marketing, allowing businesses to create campaigns tailored to individual customers.[2]

So, how is personalization achieved using this data?

The main idea of using the power of predictive analytics, artificial intelligence, machine learning, and real-time data is to perfectly curate the marketing strategies for the individuals based on their needs and wants (brief image below).



This strategy zooms in on every individual, turning massive amounts of data from online activity into highly personalized interactions. By using advanced algorithms and AI, every click, search, and purchase is analyzed, uncovering unique patterns and preferences for each consumer. AI algorithms can process large amounts of

data, including demographic information, purchase history, browsing behavior, and social media activity, to gain insights into customer preferences and behavior.[3]

Use of AI to analyze data and consumer behaviors.

AI is harnessed in various ways to utilize the vast amounts of available data for marketing purposes. Some of the key methods are discussed below [3]:

Identify patterns and trends - AI systems can analyze huge amounts of data from various sources to find trends and patterns in customer purchase behavior like the products they buy, time period, brand, price range, mode of payment and so on. [4]

Consumer profiles - By combining data from different sources, such as purchase history and social media activity, AI algorithms can create detailed profiles of each customer providing information such as age, gender, location, interests, and purchase history, to create more personalized marketing experiences.

Predictions - By combining all the data and information discussed above, AI predicts customer behavior, such as the likelihood of making a purchase, preferred products, and communication channels.

For example, imagine Sam, an athlete who just finished a marathon. AI analyzes Sam's social media activity and marathon data to recommend running gear like knee-friendly shoes, moisture-wicking clothes, and advanced hydration packs, enhancing Sam's shopping experience.[4]

AI technologies are used as core for personalisation as discussed above. Below are few of the most commonly used technologies for the purpose of hyper personalisation.

Machine Learning: Machine learning algorithms analyze historical data to identify patterns and predict future behaviors.

Natural Language Processing (NLP): Enables machines to understand and comprehend human language, directs chatbots and virtual assistants to provide personalized responses to customer queries and in sentiment analysis to gauge customer opinions and emotions.[5]

Predictive Analytics: this uses statistical techniques and machine learning algorithms to forecast future events based on historical data. Marketers use predictive analytics to anticipate customer needs and behaviors, such as predicting which products a customer is likely to purchase next.[5]

Customer Segmentation: AI can analyze customer data to identify distinct segments based on shared characteristics and behaviors. This allows marketers to create targeted

campaigns for each segment, increasing the relevance and effectiveness of their marketing efforts.

Dynamic Content Generation: AI can automatically generate personalized content, such as product recommendations, email subject lines, and advertisements, based on individual customer data. This ensures that each customer receives content that is tailored to their preferences and behaviors.

AI-driven personalization is revolutionizing how businesses connect with their customers. For instance take streaming services like Netflix and Spotify, for instance, which uses AI to recommend movies and series based on what you've browsed and chosen before [4]. Amazon has dominated the e-commerce world by using AI to offer the most accurate products to people at the right time. Sephora, Lenskart etc. offer virtual try-on options which have blurred the lines between offline and online shopping. The use of AI has proven to be helpful for businesses across the world in many ways and boosts return on investment (ROI) by helping marketers improve customer engagement, optimize ad spend, and identify new growth opportunities.[6]

But as known and experienced, with advancements come great challenges and responsibilities. It's the 21st century and what we think is available to the world in the form of data! As AI systems

rely heavily on user data, there's a fine line between personalization and privacy invasion [4]. It is the responsibility of the organization utilizing consumer data to protect customers from potential data breaches. The government has laid out multiple policies, consumer consent requirements, audits and reports and investment of privacy enhancing

technologies [4] which are expected to protect sensitive data. By following these steps, brands can adhere to data protection regulations while demonstrating a commitment to respecting user privacy, enhancing reputation and user trust.

While AI offers precision, there's a risk of losing the human touch. In the end, we're all humans working to make human lives better. A "hybrid marketing model" achieves this by defining roles for AI and humans. While AI can continue handling the data analyses and repetitive tasks and personalization efforts, human intelligence must be put up front to keep the campaigns alive with the "human touch". Striking the balance between AI & human intelligence enhances both efficiency and customer relationships.

The future of marketing hinges on not just advanced algorithms but also on genuine connections with consumers. In this evolving landscape, brands that

merge AI capabilities with human values can work toward setting the gold standard in personalized marketing, ensuring relevance and trust in every interaction.

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Employee Well-being in the Age of AI: Balancing Automation with Human



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The combination of automation and artificial intelligence (AI) is changing how businesses function in today's quickly changing workplace. These technologies provide issues for employee well-being even as they promise cost savings and enhanced efficiency. Establishing a harmonious equilibrium between utilizing automation and preserving the vital human element is imperative in cultivating a proficient and contented work force.

The Increase in Automation:

Automation and artificial Intelligence (AI) have radically changed different organizations, including manufacturing, banking, medical care, and client support. Organizations are utilizing simulated intelligence fueled arrangements all the more every now and again to further develop direction, cut expenses, and enhance tasks. A McKinsey examination proposes that by 2030, computerized reasoning could produce an extra \$13 trillion in worldwide monetary movement.

Worries over work uprooting, ability overt repetitiveness, and the mental consequences for laborers are likewise raised by this pattern toward mechanization.

The Advantages & Drawbacks of Automation:

There are a many benefits to automation in the working environment. It can eliminate with human mistake, repetitive exercises, and proposition information driven bits of knowledge for further developed navigation. HR offices, for example, can automate task or activities like data entry, payroll, and advantages organization, opening up staff individuals to focus on strategic projects and employee development. However, an over-dependence on automation might bring about an absence of interpersonal communication, which demotivates staff individuals and feel them to unimportant. The human component is as yet fundamental in significant regions including employee engagement, career development, and

dispute resolution Adding on it, predispositions in the preparation information might be sustained by artificial intelligence calculations, which could bring about one-sided recruiting and execution audit results.

The Effect on the Welfare of Employees

The ramifications of artificial intelligence joining for worker prosperity in the work environment are perplexing. Automation can possibly let loose employee from monotonous and tedious work, giving them additional opportunity for vital and inventive undertakings. Self-improvement and occupation bliss might ascend because of this change. Be that as it may, stress, tension, and occupation flimsiness can result from the need to consistently upskill and the fear of being replaced by machines. According to a World Economic forum report, while AI may open up new position possibilities, it will likewise change current positions and power laborers to conform to new work processes and innovation. This dynamic might be both exciting and threatening, which accentuates the need areas of strength for organizations to help staff individuals in dealing with this change.

Efficiency and Human Connection in Balance

·Finding Automatable jobs: To begin, determine which repetitive, labor-intensive jobs can be done without the use of human intuition or emotional intelligence. Employees can concentrate

on more important work by automating those tasks

·Human-centric approach: Automation that is focused on improving human relationships rather than displacing them is known as human-centric automation. AI-powered chatbots, for example, can answer simple questions, but delicate or complicated ones should be referred to human HR specialists for individualized assistance.

·Training and Development: Make investments in educational initiatives that support staff members' technological adaption and interpersonal skill development. Offering chances for ongoing education might help people accept automation as a tool for advancement and lessen their fear of losing their jobs.

Improving Workplace Morale:

Keeping up with high level of employee engagement in an automate climate requires individual recognitions & also valued individual contributions. Public acknowledgment or recognition, regular feedback, and incentive programs can motivate employees and support their feeling of direction. Moreover, encouraging a cooperative culture through cross-functional groups can upgrade commitment and development.

Addressing Employee Concerns:

Being Straightforward or transparent and open communication are essential in addressing employee concerns that

are related to automation. Obviously expressive the advantages of automation, like decreased responsibility and open doors for expertise improvement, while additionally offering help during the change. Offering counselling services and promoting emotional strength can assist employees to cope with the changes brought by the automation.

Putting Flexible Work Practices Into Practice:

Promoting a work-life balance by providing flexible working hours can have a huge impact on workers well being. Employees can more readily adjust their own and proficient existence with choices like adaptable planning and remote work, which brings down burnout and raises generally speaking satisfaction. Establishing appropriate limits and giving taking care of oneself help are pivotal for advancing a positive work environment.

The Work of the Future: Balancing Technology and Humanity

The future of employment or work will come from uniting humankind and innovation together. Automation and Artificial Intelligence are digging in for the long haul, yet human communication is as yet priceless. Businesses should find some kind of harmony by putting employees prosperity first, reassuring a culture of deep rooted learning, and rebuilding job position to place an vital role on soft skills . Proceeding, it is important that leader adopt a thorough strategy that considers both the innovation and human

components of the work environment. By doing this, they might lay out a work environment where staff individuals are energized, upheld, and given the devices they need to prevail in the Artificial intelligence period.

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Chanakyaaneeti competition by PwC, IIT Madras

Participants- Tanvi Mundra, Siddharth Singh, Richa Tiwary

1. First of all, congratulations on winning. How do you feel about it?

Thank you so much! Winning third prize at IIT Madras is an incredible honor and a testament to the hard work and dedication of our team. We are thrilled and proud to have our efforts recognized at such a prestigious competition. It was an amazing experience that challenged us to think creatively and strategically, and we're excited to see where this achievement will take us in the future. This win has truly motivated us to keep pushing our limits and striving for excellence.

2. Could you brief us about this competition? What were the hurdles you faced and how did you overcome them?

The competition was a strategy-making event focused on flood mitigation, organized by PwC and hosted by IIT Madras. Our challenge was to develop a comprehensive solution for flood detection, prevention, and minimizing the aftermath effects. Our approach involved leveraging technology and artificial intelligence to address these issues effectively.

One of the significant hurdles we faced was integrating the various technologies we researched into a cohesive and viable process. Each team member brought different ideas and expertise, and combining these elements into a practical solution was challenging. We overcame this by conducting thorough research on each technology and working collaboratively to integrate our ideas. This collaborative effort allowed us to devise a comprehensive strategy that could be realistically implemented by the government for both pre- and post-flood measures.

3. Competing in such high level competitions requires an edge over others. What steps did you take to distinguish yourself from other participants?

To distinguish ourselves in the competition, we focused on several key strategies. We conducted in-depth research on the latest technologies and AI solutions for flood mitigation and combined our diverse backgrounds to create a holistic and robust solution. Ensuring real-world viability, we developed a strategy that could be practically implemented by government agencies. Our clear and comprehensive presentation, which included compelling visuals and data-driven insights, effectively communicated our ideas. Strong team collaboration and open communication allowed us to refine our approach, and by seeking feedback from experts, we were able to further polish our strategy before the final presentation. These steps collectively helped us stand out from other participants.

4. What were your key learnings and takeaways?

Winning in such a prestigious national-level competition gave us a profound sense of competitiveness and the drive to excel further. Participating in various quizzes throughout the competition enhanced my analytical thinking and time management skills. Additionally, I learned a great deal from the diverse solutions presented by other teams, which broadened my perspective and understanding of innovative approaches to flood mitigation. These experiences collectively enriched my strategic thinking and collaborative abilities.

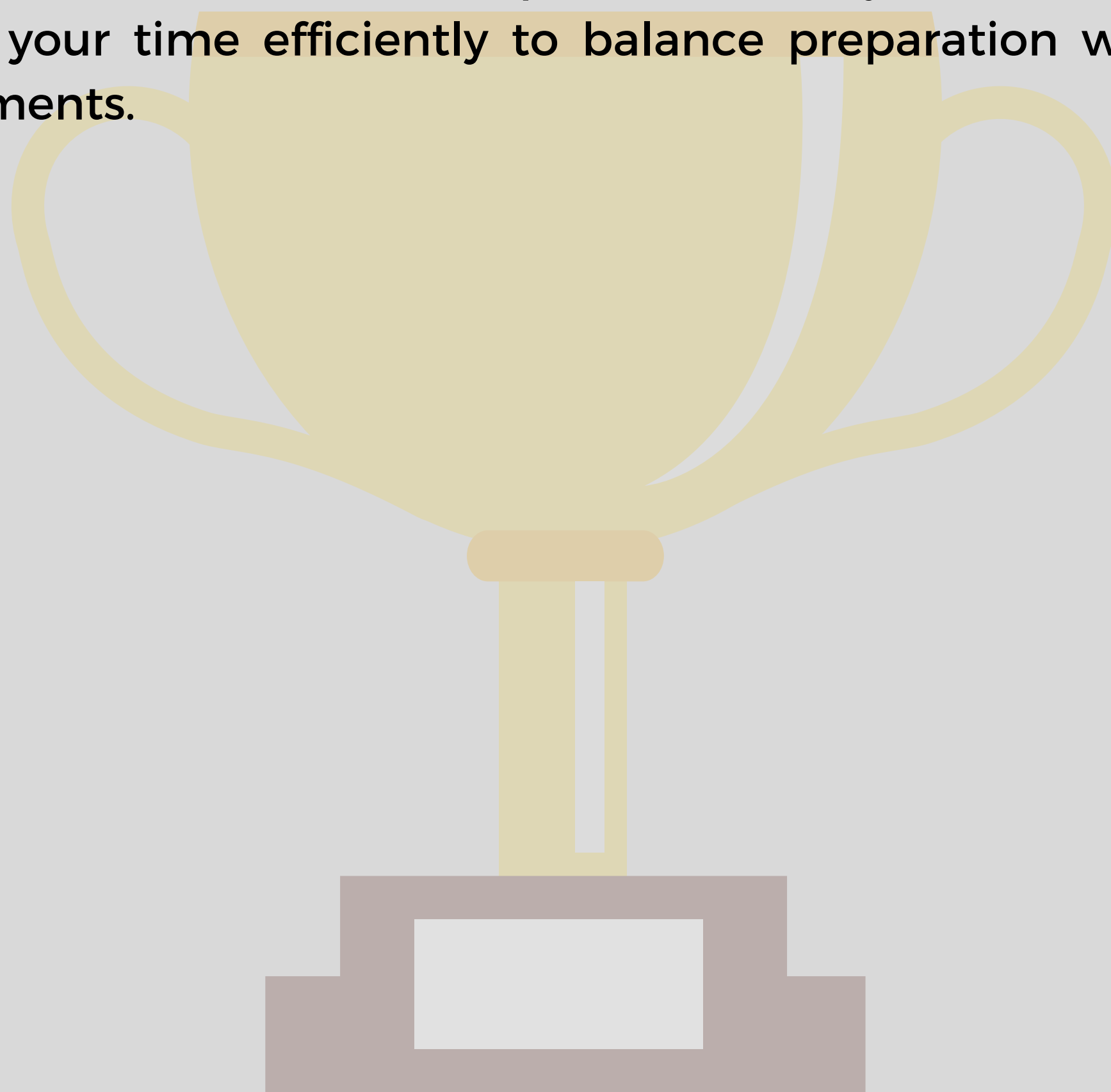


5.It's always difficult managing time between academics, personal life, and other opportunities. How did you manage your time?

I managed my time by prioritizing tasks, creating a balanced schedule, and setting clear goals. Effective time management and discipline allowed me to allocate specific times for academics, personal life, and competition preparation, ensuring I stayed focused and productive in all areas.

6. What guidance or recommendations would you offer to fellow students to ace such high value platform?

To excel on high-value platforms, I recommend thoroughly researching your topic and staying updated on the latest developments. Collaborate effectively with your team, valuing each member's input to create innovative yet practical solutions. Focus on presenting your ideas clearly and compellingly, using strong visuals and data to support your points. Regularly seek feedback from mentors and experts to refine your strategy. Lastly, manage your time efficiently to balance preparation with other commitments.



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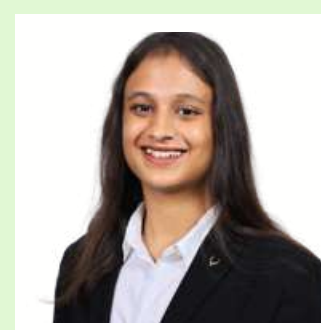
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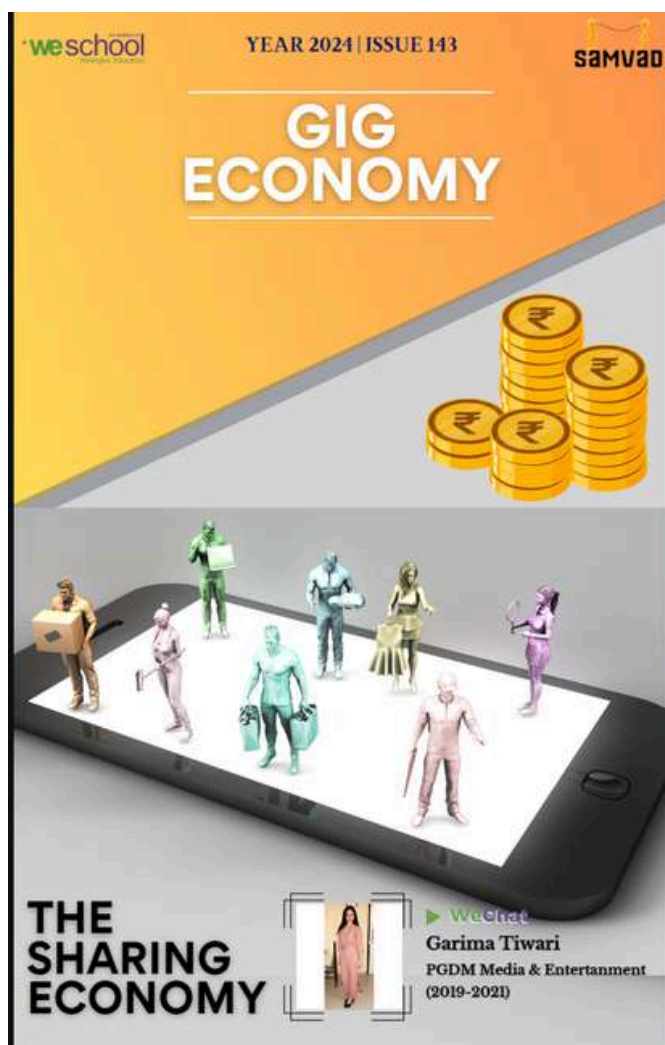
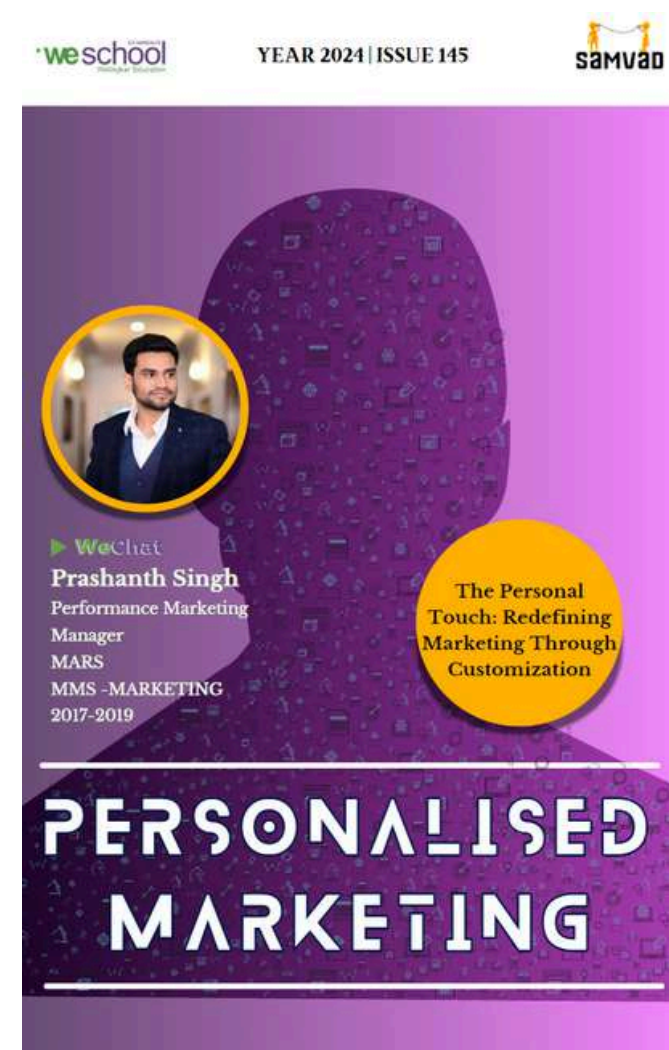
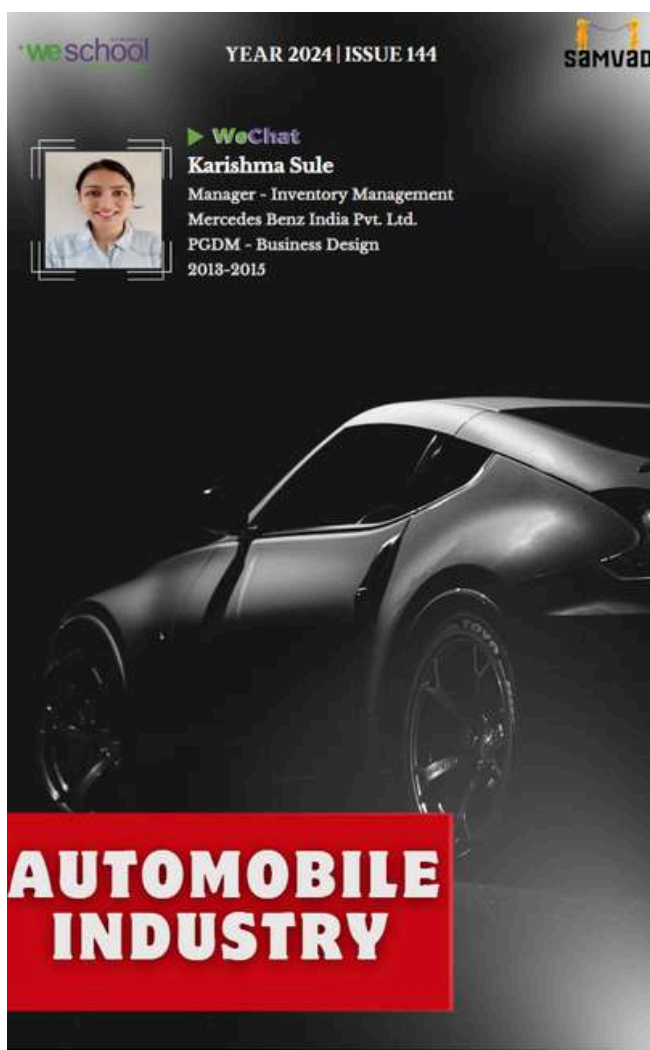
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